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RAW SEQUENCE LISTING

DATE: 01/24/2002

PATENT APPLICATION: US/09/718,102

TIME: 19:08:19

Input Set : N:\Crf3\RULE60\09718102.raw Output Set: N:\CRF3\01242002\1718102.raw

SEQUENCE LISTING

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ENTERED
        (1) GENERAL INFORMATION:
      5
             (i) APPLICANT: Roncarolo, Maria-Grazia
      6
                             de Waal Malefyt, Rene
      7
                             Bacchetta, Rosa
      8
                             Groux, Herve M.
      9
                             de Vries, Jan E.
            (ii) TITLE OF INVENTION: USE OF INTERLEUKIN-10 TO PRODUCE A
     11
                                      POPULATION OF SUPPRESSOR CELLS
     12
           (iii) NUMBER OF SEQUENCES: 26
     14
     16
            (iv) CORRESPONDENCE ADDRESS:
     17
                   (A) ADDRESSEE: DNAX Research Institute
                   (B) STREET: 901 California Avenue
     18
     19
                   (C) CITY: Palo Alto
                   (D) STATE: California
     20
     21
                   (E) COUNTRY: USA
     22
                   (F) ZIP: 94304-1104
             (V) COMPUTER READABLE FORM:
     24
     25
                   (A) MEDIUM TYPE: Floppy disk
     26
                   (B) COMPUTER: Apple Macintosh
     27
                   (C) OPERATING SYSTEM: Macintosh 7.5.5
     28
                   (D) SOFTWARE: Microsoft Word 5.1a
     30
            (vi) CURRENT APPLICATION DATA:
C--> 31
                   (A) APPLICATION NUMBER: US/09/718,102
                   (B) FILING DATE: 20-Nov-2000
C-->32
     33
                   (C) CLASSIFICATION:
     35
           (vii) PRIOR APPLICATION DATA:
                   (A) APPLICATION NUMBER: 08/643,810
     36
     37
                   (B) FILING DATE:
     39
          (viii) ATTORNEY/AGENT INFORMATION:
     40
                  (A) NAME: Ching, Edwin P.
     41
                   (B) REGISTRATION NUMBER: 34,090
                   (C) REFERENCE/DOCKET NUMBER: DX0261K1
     42
     44
            (ix) TELECOMMUNICATION INFORMATION:
     4.5
                  (A) TELEPHONE: 415-852-9196
                  (B) TELEFAX: 415-496-1200
     46
     49
        (2) INFORMATION FOR SEQ ID NO: 1:
             (i) SEQUENCE CHARACTERISTICS:
     51
     52
                  (A) LENGTH: 178 amino acids
     53
                  (B) TYPE: amino acid
     54
                  (C) STRANDEDNESS: single
     55
                  (D) TOPOLOGY: linear
```

(ii) MOLECULE TYPE: peptide

57

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Input Set : N:\Crf3\RULE60\09718102.raw
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62	(xi)	SEOU	JENCE	DES	CRIE	OIT	I: SH	O II	NO:	1:						
64				Ser							Val	Leu	Leu	Thr	Gly	Val
65	1				5			•	•	10					15	
67	Arq	Ala	Ser	Pro	Gly	Gln	Gly	Thr	Gln	Ser	Glu	Asn	Ser	Cys	Thr	His
68	,			20	•		-		25					30		
70	Phe	Pro	Gly	Asn	Leu	Pro	Asn	Met	Leu	Arg	Asp	Leu	Arg	Asp	Ala	Phe
71			35					40		_	-		45	-		
73	Ser	Arq	Val	Lys	Thr	Phe	Phe	Gln	Met	Lys	Asp	Gln	Leu	Asp	Asn	Leu
74		50		•			55			-	-	60				
76	Leu	Leu	Lys	Glu	Ser	Leu	Leu	Glu	Asp	Phe	Lys	Gly	Tyr	Leu	Gly	Cys
77	65		-			70					75					80
79	Gln	Ala	Leu	Ser	Glu	Met	Ile	Gln	Phe	Tyr	Leu	Glu	Glu	Val	Met	Pro
80					85					90					95	
82	Gln	Ala	Glu	Asn	Gln	Asp	Pro	Asp	Ile	Lys	Ala	His	Val	Asn	Ser	Leu
83				100					105					110		
85	Gly	Glu	Asn	Leu	Lys	Thr	Leu	Arg	Leu	Arg	Leu	Arg	Arg	Cys	His	Arg
86			115					120					125			
88	Phe	Leu	Pro	Cys	Glu	Asn	Lys	Ser	Lys	Ala	Val	Glu	Gln	Val	Lys	Asn
89		130					135					140				
91	Ala	Phe	Asn	Lys	Leu	Gln	Glu	Lys	Gly	Ile	Tyr	Lys	Ala	Met	Ser	Glu
92	145					150					155					160
94	Phe	Asp	Ile	Phe	Ile	Asn	Tyr	Ile	Glu	Ala	Tyr	Met	Thr	Met	Lys	Ile
95					165					170					175	
97	Arg	Asn														
100	AND TATEL															
100	(2) INFO)RMA I	CION	FOR	SEQ	ID N	10: 2	::								
102	. ,	SEC	QUENC	CE CH	ARAC	TERI	STIC	CS:								
	. ,	SEQ (P	QUENC	CE CH	ARAC I: 17	TERI 'O an	STIC	CS:	ls							
102 103 104	. ,) SEQ (<i>P</i>	QUENC A) LE B) TY	CE CH ENGTH TPE:	ARAC : 17 amir	TERI 'O an	STIC nino cid	CS: acid	ls							
102 103 104 105	. ,) SEQ (<i>P</i> (E	QUENC A) LE B) TY C) SI	CE CH ENGTH PE: PRAND	ARAC I: 17 amir EDNE	CTERI 'O am io ac ESS:	STIC nino cid sing	CS: acid	ls							
102 103 104 105 106	(i)	SEQ (<i>P</i> (E (C (1)	QUENC A) LE B) TY C) SI O) TO	CE CH ENGTH PE: CRAND POLC	ARAC : 17 amir EDNE	TERI 0 am 10 ac ESS: line	STIC nino cid sing	CS: acid	ls							
102 103 104 105 106 108	(i)	SEQ (# (E (C (I (MOI	QUENC A) LE B) TY C) SI O) TO LECUL	CE CH CNGTH CPE: CRAND DPOLC LE TY	ARAC i: 17 amir EDNE OGY: PE:	TERI 0 am 10 ac ESS: line pept	STIC nino cid sing ear cide	S: acio								
102 103 104 105 106 108 113	(i) (ii) (xi)	SEQ (A (B (C (I) MOI) SEQ	QUENC A) LE B) TY C) ST C) TC LECUL QUENC	CE CHENGTHE PRANCE TY	IARACI: 17 amir DEDNE DGY: PE:	TERI O an O ac ESS: line pept	STIC nino cid sing car cide ON: S	S: acid ple SEQ 1	ID N O				, , , , , , , , , , , , , , , , , , ,	T	.	
102 103 104 105 106 108 113 115	(ii) (ii) (xi) Met	SEQ (A (B (C (I) MOI) SEQ	QUENC A) LE B) TY C) ST O) TO LECUL	CE CHENGTHE PRANCE TY	IARACI: 17 amir EDNE GY: FE: CSCRI	TERI O an O ac ESS: line pept	STIC nino cid sing car cide ON: S	S: acid ple SEQ 1	ID N O	ı Glr		s Leu	Val	. Let		ı Tyr
102 103 104 105 106 108 113 115	(ii) (xi) Met	SEQ (# (E (C (I) MOI) SEQ E Glu	QUENCA) LEBO TY B) TY C) ST C) TC LECUI QUENCA A TG	CE CHENGTH TPE: TRANE PPOLC LE TY CE DE LATE	IARACI: 17 amir DEDNE DGY: PE: CSCRI Leu 5	CTERI O an O ac ESS: line pept PTIC Val	STIC nino cid sing ear cide ON: S	ES: acid ple SEQ 1	D NO	ı Glr 10	суя				15	
102 103 104 105 106 108 113 115 116	(ii) (xi) Met	SEQ (# (E (C (I) MOI) SEQ E Glu	QUENCA) LEBO TY B) TY C) ST C) TC LECUI QUENCA A TG	CE CHENGTHE PROPERTY OF THE PROPERTY OF TYPE DE TYPE D	IARACI: 17 amir DEDNE DGY: PE: CSCRI Leu 5	CTERI O an O ac ESS: line pept PTIC Val	STIC nino cid sing ear cide ON: S	ES: acid ple SEQ 1	ID NO	ı Glr 10	суя			Phe	15	ı Tyr) Gln
102 103 104 105 106 108 113 115 116 118	(i) (xi) Met 1 Leu	SEQ (A (B (C (I) MOI) SEQ E Glu	QUENCA) LE B) TY C) ST C) TC LECUI QUENCA Arg	EE CHENGTHE PER CONTROL OF CONTRO	ARAC EL 17 AMIT DEDNE DEVE DESCRI EL EU 5 Cys	CTERI O am O ac ESS: line pept PTIC Val	STIC nino cid sing ar cide ON: S Val	S: acid gle SEQ I Thi	ID NO Leu Asp 25	u Glr 10 Glr	Cys Cys	. Asp	Asr	Phe	15 Pro	Gln
102 103 104 105 106 108 113 115 116 118 119	(i) (xi) Met 1 Leu	SEQ (A (B (C (I) MOI) SEQ E Glu	QUENCA) LEGA) TY C) ST C) ST C) TC LECUI QUENCA A Pro	EE CHENGTHE PER CONTROL OF CONTRO	ARAC EL 17 AMIT DEDNE DEVE DESCRI EL EU 5 Cys	CTERI O am O ac ESS: line pept PTIC Val	STIC nino cid sing ar cide ON: S Val	SEQ I Thi	ID NO Leu Asp 25	u Glr 10 Glr	Cys Cys	. Asp	Asr Lys	Phe	15 Pro	
102 103 104 105 106 108 113 115 116 118 119 121	(ii) (xi) (xi) Met 1 Let	SEQ (A (E (C (I) MOI SEQ E Glu	QUENCAL LEGAL PROPERTY AND A PROPERTY AFG. 35	E CHENGTHE PE: PRANE POLCE TY E DE Arg O Glu 20 I Asp	ARACI: 17 amir DEDNE GY: CPE: CSCRI Leu 5 Cys	CTERI 70 am 10 ac ESS: line pept PTIC Val	STIC nino cid sing ear cide ON: S Val	SEQ DEPARTMENT OF Ala	D NO Let Asp 25 Phe	1 Glr 10 Glr e Sei	Cys Cys Arg	s Asp Val	Asr Lys	Phe 30 Thi	15 Pro	Gln Phe
102 103 104 105 106 108 113 115 116 118 119 121 122 124	(ii) (xi) (xi) Met 1 Let	SEQ (# (F (G) (F) (F) (F) (F) (F) (F) (F) (F) (F) (F	QUENCAL LEGAL PROPERTY AND A PROPERTY AFG. 35	E CHENGTHE PE: PRANE POLCE TY E DE Arg O Glu 20 I Asp	ARACI: 17 amir DEDNE GY: CPE: CSCRI Leu 5 Cys	CTERI 70 am 10 ac ESS: line pept PTIC Val	STIC nino cid sinc ear cide DN: S Val	SEQ DEPARTMENT OF Ala	D NO Let Asp 25 Phe	1 Glr 10 Glr e Sei	Cys Cys Arg	s Asp Val	Asr Lys	Phe 30 Thi	15 Pro	Gln
102 103 104 105 106 108 113 115 116 118 119 121 122 124 125	(ii) (xi) (xi) Met 1 Leu Met	SEQ (F (G (II) MOI SEQ E Glu Ala Leu Thr 50	QUENCAL PROPERTY OF LYSE	TE CHENGTH TPE: TRANE PPOLC TY TE DE TY TO Glu TY TO Asp	IARACI: 17 amir bEDNE GY: CYE: CYE: Cys Leu Glu	CTERITO AMERICAN TO A CONTROL OF THE	STIC nino cid sing ear cide ON: S Val Val Asp	SEQ I Thi Thi Ala 40	D NO Let Asp 25 Phe	Glr 10 Glr Ser	Cys Cys Arg	S Asp Val Lys 60	Asr Lys 45 Glu	Phe 30 Thi	15 Pro Phe	o Gln e Phe Leu
102 103 104 105 106 108 113 115 116 118 119 121 122 124 125 127	(ii) (xi) (xi) Met 1 Leu Met Glr	SEQ (F (G (II) MOI SEQ E Glu Ala Leu Thr 50	QUENCAL PROPERTY OF LYSE	TE CHENGTH TPE: TRANE PPOLC TY TE DE TY TO Glu TY TO Asp	IARACI: 17 amir bEDNE GY: CYE: CYE: Cys Leu Glu	CTERITO AM TO TYPE TO THE TO	STIC nino cid sing ear cide ON: S Val Val Asp	SEQ I Thi Thi Ala 40	D NO Let Asp 25 Phe	Glr 10 Glr Ser	Cys Arc Leu Ala	S Asp Val Lys 60	Asr Lys 45 Glu	Phe 30 Thi	15 Pro Phe	o Gln e Phe Leu t Ile
102 103 104 105 106 108 113 115 116 118 119 121 122 124 125 127 128	(ii) (xi) (xi) Met 1 Leu Met Glr Glu 65	SEQ (F (C (II) MOI SEQ Glu Ala Leu Thr 50 Asp	QUENCAL LEGAL ATG	CE CHENGTH TPE: CRAND POLC E TY CE DE Arg O Glu 20 Asp E Asp	ARACA	TTERITO AM TO ACCESS: line pept TTIC Val GRAPS Val TYP 70	STIC nino cid sing ear cide ON: S Val Val Val Asp 55 C Leu	SEQ In This Alam 40 Asr	D NO Let Asp 25 Phe Let Cys	o Glr 10 O Glr E Sen Leu	Cys Arc Arc Leu Ala 75	Val Val Lys 60 Leu	Asr Lys 45 Glu	Phe 30 Thi Sei	15 Pro Phe Leu	o Gln e Phe Leu Leu 11e 80
102 103 104 105 106 108 113 115 116 118 119 121 122 124 125 127 128 130	(ii) (xi) (xi) Met 1 Leu Met Glr Glu 65	SEQ (F (C (II) MOI SEQ Glu Ala Leu Thr 50 Asp	QUENCAL LEGAL ATG	CE CHENGTH TPE: CRAND POLC E TY CE DE Arg O Glu 20 Asp E Asp	ARACI: 17 amir DEDNE DGY: PE: CSCRI Leu Cys Cys Cleu Glu Gly	TTERITO AM TO ACCESS: line pept TTIC Val GRAPS Val TYP 70	STIC nino cid sing ear cide ON: S Val Val Val Asp 55 C Leu	SEQ In This Alam 40 Asr	D NO Let Asp 25 Phe Let Cys	o Glr Let Glr Glr Glr Glr Glr Glr	Cys Arc Arc Leu Ala 75	Val Val Lys 60 Leu	Asr Lys 45 Glu	Phe 30 Thi Sei	15 Pro Phe Leu Met	o Gln e Phe Leu t Ile
102 103 104 105 106 108 113 115 116 118 119 121 122 124 125 127 128 130 131	(ii) (xi) (xi) Met Leu Met Glr Glr 65	SEQ (F (C (II) MOI SEQ Glu Ala Leu Thr 50 Asp A Phe	QUENCAL LEGULENCE AT Property Argusta Argusta Argusta Property Argusta	CE CHENGTH TPE: CRAND POLC E TY CE DE Arg O Glu 20 I Asp I Asp	ARACI: 17 amir DEDNE GY: PE: CSCRI Leu 5 Cys Leu Glu Glu 85	CTERITO AM TO AM TO AM TO AM TO AM TO AM TO TO TO Glue TO Glue TO Glue TO TO TO Glue TO T	STICATION OF THE PROPERTY OF T	SS: acic fle SEQ I Thi Ala 40 Asr Gly	D NO Let Asp 25 Pho Let Cys	o Glr Let Glr Glr Glr Glr Glr Glr	n Cys Arg Arg Leu Ala 75 Ala	Asp Val Lys 60 Leu Glu	Asr Lys 45 Glu Ser	Phe 30 Thi Ser Glu	15 Property Phenomena Phen	Gln Phe Leu Ile R0 Pro
102 103 104 105 106 108 113 115 116 118 119 121 122 124 125 127 128 130 131 133	(ii) (xi) (xi) Met Leu Met Glr Glr 65	SEQ (F (C (II) MOI SEQ Glu Ala Leu Thr 50 Asp A Phe	QUENCAL LEGULENCE AT Property Argusta Argusta Argusta Property Argusta	CE CHENGTH CPE: CRAND CPOLC CE TY CE DE CASP CASP CASP CASP CASP CASP CASP CASP	ARACE IN THE PROPERTY OF THE P	CTERITO AM TO AM TO AM TO AM TO AM TO AM TO TO TO Glue TO Glue TO Glue TO TO TO Glue TO T	STICATION OF THE PROPERTY OF T	SS: acic fle SEQ I Thi Ala 40 Asr Gly	D NO Let 25 Pro	Glr 10 Glr Ser Leu Glr Glr Glr Glr Glr Glr Glr	n Cys Arg Arg Leu Ala 75 Ala	Asp Val Lys 60 Leu Glu	Asr Lys 45 Glu Ser	Phe 30 Thi Ser Glu Glr	15 Pro Phe Leu Met Asp 95 Thr	o Gln e Phe Leu Leu 11e 80
102 103 104 105 106 108 113 115 116 118 119 121 122 124 125 127 128 130 131 133 134	(ii) (xi) Met 1 Leu Met Glr Glu 65 Glr	SEQ (A (B (C) (II) MOI SEQ II Ala Leu Thr 50 II Asp II Asp II Ala	QUENCAL LYS	CE CHENGTH TPE: TRANE POLC TY TE DE TAT TO Glu TASP TASP TASP TASP TASP TASP TASP TASP	ARACI: 17 amir DEDNE GY: PE: SCRI Cys Cys Cleu Glu Glu 85 His	CTERITO AMERICA AND ACCESS: line pept PTIC Val Gly Val Tyr 70 Glu Val	STICAL ST	SS: acic fle SEQ I Thi Ala 40 Asr Gly Met	D NO Let Asp 25 Phe Let Cys Pro	I Glr 10 Glr E Ser Let Glr 90 I Gly	Cys Cys Arg Leu Ala 75 Ala Glu	Val Val Lys 60 Leu Glu	Asr 45 Glu Ser Asr	Phe 30 This Ser Glu Glr Lys	15 Pro Phe Leu Met Asp 95 Thr	o Gln e Phe Leu E Ile 80 o Pro
102 103 104 105 106 108 113 115 116 118 119 121 122 124 125 127 128 130 131 133 134 136	(ii) (xi) Met 1 Leu Met Glr Glu 65 Glr	SEQ (A (B (C) (II) MOI SEQ II Ala Leu Thr 50 II Asp II Asp II Ala	QUENCAL PROPERTY LYS	CE CHENGTH CPE: CRAND CPOLC CE TY CE DE CAT	ARACI: 17 amir DEDNE GY: PE: SCRI Cys Cys Cleu Glu Glu 85 His	CTERITO AMERICA AND ACCESS: line pept PTIC Val Gly Val Tyr 70 Glu Val	STICAL ST	SEQ I Thir Thir Ala 40 Asr	D NO C Leu 25 I Phe Leu Cys C Pro	I Glr 10 Glr E Ser Let Glr 90 I Gly	Cys Arc Arc Leu Ala 75 Ala Glu	Val Val Lys 60 Leu Glu	Asr 45 Glu Ser Asr	Phe 30 Thr Ser Glu Glr Lys 110 Glu Glu	15 Pro Phe Leu Met Asp 95 Thr	Gln Phe Leu Ile R0 Pro
102 103 104 105 106 108 113 115 116 118 119 121 122 124 125 127 128 130 131 133 134	(ii) (xi) (xi) Met 1 Leu Met Glr Glu 65 Glr Glu Arg	SEQ (F (C (II) MOI SEQ III Ala Leu II Thr 50 II Asp II Asp II Ala	QUENCAL LYS ATS ATS ATS ATS ATS ATS ATS ATS ATS AT	CE CHENGTH CPE: CRAND CPOLC CE TY CE DE CAT	ARACE IT ARA	CTERITO AMERICA SESS: line pept PTIC Val	STICAL ASP	SS: acid fle SEQ I Thi Ala 40 Asr Gly Met Ser His	ASP 25 Pho 1 Leu 27 Cys 2 Pro 1 Leu 105 3 Arg	Glr Glr Ser Let Glr Glr Glr Glr Glr Glr Glr Gl	n Cys n Cys Arg Leu n Ala 75 n Ala 7 Glu	Asp Val Lys 60 Leu Glu Asn	Asr Lys 45 Glu Ser Asr Leu	Phe 30 5 Thr Ser Glu Glr Lys 110	15 Property Phenomena Phen	o Gln e Phe Leu E Ile 80 o Pro

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1.40			120					125					1 4 0				
140		T	130	T1 -	m	Ŧ	N 1	135	C	<i>α</i> 1	Dh.a	7 00	140	Dha	Tlo	1	П
142		-	GIY	Ile	туг	Lys		мес	ser	GIU	Pne	-	116	Pne	rre	ASII	
143		145	a 1	. 1 -		V - F	150	T1 -	T	3 l a	3	155					160
145		ше	GIU	Ala	туг		Thr	шe	гàг	Ala							
146		T.1.	D) / 3 T	TON 1	non .	165	TD 11/				170						
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152			•) TYI					1 _								
153			•) STI				_	re								
154			•) TO													
156		(ii)				•											
161		(xi)											0	m 1	TT -	Db.	D
163		_	Pro	Gly	GIn		Inr	GIN	ser	GIU		ser	Cys	Thr	HIS		Pro
164		1	_	_		5		_	_	_	10	_			n.1	15	-
166		Gly	Asn	Leu		Asn	Met	Leu	Arg		Leu	Arg	Asp	Ala		ser	Arg
167			_	_,	20	_,			_	25		_	_	_	30	_	
169		Val	Lys	Thr	Phe	Phe	GIn	Met	_	Asp	GIn	Leu	Asp		Leu	Leu	Leu
170		_		35	_	_	- 1	_	40	_	- 1	_	_	45	_	a 1	
172		Lys		Ser	Leu	Leu	Glu		Phe	Lys	Gly	Tyr		GIY	Cys	GIn	Ala
173			50					55	_	_	- 1	- 3	60		_	a 1	- 1
175			Ser	Glu	Met	lle		Phe	Tyr	Leu	Glu		vaı	мет	Pro	GIn	
176		65			_	_	70		_			75	_	_	_	- 1	80
178		GLu	Asn	Gln	Asp		Asp	He	Lys	Ala		vaı	Asn	ser	Leu		GIU
179		_	_	_		85	_	_	_		90	_	~		•	95	-
181		Asn	Leu	Lys		Leu	Arg	Leu	Arg		Arg	Arg	Cys	HIS		Pne	Leu
182			_	~ 1	100	_		-	. 1 .	105	0.1	a 1		T	110	* 1 -	pl
184		Pro	Cys	Glu	Asn	Lys	ser	rys		vaı	GIU	GIN	vaı	_	Asn	Ата	Pne
185		_		115	a 1	01	+	01	120		T	3 1-		125	a1	Dh.a	3
187		Asn	_	Leu	GIn	GIU	гàг		шe	Tyr	Lys	Ата		ser	GIU	Pne	ASP
188		~ 1	130	- 1			+1 -	135	.1.	m	V-+	m 1	140	T	*1 ~	1	1
190			Pne	Ile	ASI	туг		GLU	Ala	TAL	мес		мес	ьуѕ	116	AIG	
191	, , ,	145	OMA MI	TON 1	70 D (7EO -	150	S. 4				155					160
	(2)	INFO															
196		(I)		JENCE													
197			•) LEN					icius	5							
198) TYI					١٥								
199) STI		_			Le								
200		(44)	•) TOE													
202		(ii)							70 TE	NIO.	. 1.						
207		(Xi)										Lou	λκα	N an	Tou	λνα	Aan
209			ASP	Gln	Cys	ASP 5	ASII	PHe	PIO	GIII	мес 10	ьеu	Arg	ASP	Leu	15	ASP
210		1	Dho	Con	λωα	_	T 170	mh r	Dho	Dho		Thr	Two	λαn	Clu		A CD
212 213		нта	rne	Ser	20	val	цуб	1111	rne	25	GTII	TIIT	пуз	νsh	30	val	vah
215		Nan	Lou	Leu		Lvc	Clu	cor	Lou		Glu	λαη	Dhe	Lve		Тагъ	Len
215		ASII	Leu	ьец 35	ьеи	цуѕ	GIU	ser	40	neu	GIU	vəh	FIIG	ьуs 45	ату	тАт	neu
218		C1 tr	Cve	Gln	αſΔ	Leu	Ser	Glu		Tlo	Gln	Dho	Tur		Glu	Glu	Va 1
219		СТУ	50	0111	пта	LGU	001	55	110 L	110	O + 11	1110	60	Leu	JIU	Jiu	141
217			50					ر ر					00				

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221	Met	Pro	Gln	Ala	Glu	Asn	Gln	Asp	Pro	Glu		Lys	Asp	His	Val		
222	65					70					75					80	
224	Ser	Leu	Gly	Glu		Leu	Lys	Thr	Leu		Leu	Arg	Leu	Arg		Cys	
225					85					90					95	_	
227	His	Arg	Phe	Leu	Pro	Cys	Glu	Asn	Lys	Ser	Lys	Ala	Val	Glu	Gln	Ile	
228				100					105					110			
230	Lys	Asn	Ala	Phe	Asn	Lys	Leu	Gln	Glu	Lys	Gly	Ile	Tyr	Lys	Ala	Met	
231			115					120					125				
233	Ser	Glu	Phe	Asp	Ile	Phe	Ile	Asn	Tyr	Ile	Glu	Ala	Tyr	Met	Thr	Ile	
234		130					135					140					
236	Lys	Ala	Arg														
237	145																
239	(2) INFO	RMAT	I NO	FOR S	SEQ :	ID NO): 5	:									
241	(i)	SEQU	JENCI	E CHA	ARAC:	TERIS	STIC	S:									
242		(A)) LEI	NGTH	: 15	base	e pa	irs									
243		(B)) TYI	PE: 1	nucle	eic a	acid										
244		(C) STI	RANDI	EDNES	SS: \$	sing!	le									
245					GY: I												
247	(ii)	MOLI	ECULI	E TYI	PE: o	DNA											
252	(xi)						N: S	EQ II	ON C	: 5:							
	CTAAGGAG																15
256	(2) INFO	RMATI	ON I	FOR S	SEO I	ED NO	0: 6	:									
258	, ,	SEQU															
259	\ -/				: 10												
260					nucle												
261					EDNES			le									
262					GY: 2		_										
264	(ii)						-										
269	(xi)						1: S	EO II	ON C	: 6:							
	ATGAGCTC							~									10
	(2) INFO		ON F	OR S	SEO 1	ED NO): 7	:									
275	• •	SEQU															
276	(+)				: 60												
277					nucle												
278					EDNES			l e									
279					GY:]												
281	(ii)						• •										
286	(xi)						J. SI	zo TI	NO.	. 7.							
	AGCCCAGG										\ <i>C</i> ጥጥ(CCAC	G TI	A C C C	CTAC	٦.	60
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RAW SEQUENCE LISTING

DATE: 01/24/2002 PATENT APPLICATION: US/09/718,102 TIME: 19:08:19

Input Set : N:\Crf3\RULE60\09718102.raw Output Set: N:\CRF3\01242002\I718102.raw

310 (i) SEQUENCE CHARACTERISTICS: 311 (A) LENGTH: 62 base pairs
312 (B) TYPE: nucleic acid
313 (C) STRANDEDNESS: single
314 (D) TOPOLOGY: linear
316 (ii) MOLECULE TYPE: cDNA
321 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
323 GTAACCTGCC TAACATGCTT CGAGATCTCC GAGATGCCTT CAGCAGAGTG AAGACTTTCT 60
325 TT 62
327 (2) INFORMATION FOR SEQ ID NO: 10:
329 (i) SEQUENCE CHARACTERISTICS:
330 (A) LENGTH: 48 base pairs
331 (B) TYPE: nucleic acid
332 (C) STRANDEDNESS: single
333 (D) TOPOLOGY: linear
335 (ii) MOLECULE TYPE: cDNA
340 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
342 CTTCACTCTG CTGAAGGCAT CTCGGAGGATC TCGAAGCATG TTAGGCAG 48
344 (2) INFORMATION FOR SEQ ID NO: 11:
346 (i) SEQUENCE CHARACTERISTICS:
347 (A) LENGTH: 35 base pairs
348 (B) TYPE: nucleic acid
349 (C) STRANDEDNESS: single
350 (D) TOPOLOGY: linear
352 (ii) MOLECULE TYPE: cDNA
357 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
359 CAAATGAAGG ATCAGCTGGA CAACTTGTTC TTAAG 35
361 (2) INFORMATION FOR SEQ ID NO: 12:
363 (i) SEQUENCE CHARACTERISTICS:
364 (A) LENGTH: 44 base pairs
365 (B) TYPE: nucleic acid
366 (C) STRANDEDNESS: single
367 (D) TOPOLOGY: linear
369 (ii) MOLECULE TYPE: cDNA
374 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
376 CTTAAGAACA AGTTGTCCAG CTGATCCTTC ATTTGAAAGA AAGT 44
378 (2) INFORMATION FOR SEQ ID NO: 13:
380 (i) SEQUENCE CHARACTERISTICS:
381 (A) LENGTH: 69 base pairs
382 (B) TYPE: nucleic acid
383 (C) STRANDEDNESS: single
384 (D) TOPOLOGY: linear
386 (ii) MOLECULE TYPE: cDNA
391 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
393 GAGTCCTTGC TGGAGGACTT TAAGGGTTAC CTGGGTTGCC AAGCCTTGTC TGAGATGATC 60
395 CAGTTTTAT 69
397 (2) INFORMATION FOR SEQ ID NO: 14:
399 (i) SEQUENCE CHARACTERISTICS:
400 (A) LENGTH: 73 base pairs

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/718,102

DATE: 01/24/2002 TIME: 19:08:20

Input Set : N:\Crf3\RULE60\09718102.raw
Output Set: N:\CRF3\01242002\1718102.raw

L:31 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:32 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]